

Title (en)
CENTRIFUGAL COMPRESSOR AND TURBOCHARGER PROVIDED WITH SAID CENTRIFUGAL COMPRESSOR

Title (de)
ZENTRIFUGALVERDICHTER UND TURBOLADER MIT DEM ZENTRIFUGALVERDICHTER

Title (fr)
COMPRESSEUR CENTRIFUGE ET TURBOCOMPRESSEUR POURVU DUDIT COMPRESSEUR

Publication
EP 3715639 A4 20210630 (EN)

Application
EP 17932267 A 20171120

Priority
JP 2017041708 W 20171120

Abstract (en)
[origin: US2020049162A1] A centrifugal compressor includes an impeller and a housing having a scroll passage of spiral shape formed on an outer peripheral side of the impeller. When a circumferential-directional position of the scroll passage is represented by an angular position with respect to a scroll end of the scroll passage, and in a cross-section obtained by cutting the scroll passage along a plane including a rotational axis of the impeller at a circumferential-directional position where the angular position is θ , $F(\theta)$ is defined as: $F(\theta)=(A/R)/r$, where A is a cross-sectional area of the scroll passage, R is a distance from the rotational axis to a scroll center of the cross-section of the scroll passage, and r is a radius of the impeller, $0.35 \leq F(360^\circ) \leq 0.65$, and $0.08 \times F(360^\circ) \leq F(60^\circ) \leq 0.4 \times F(360^\circ)$.

IPC 8 full level
F04D 29/44 (2006.01)

CPC (source: EP US)
F04D 29/441 (2013.01 - EP US); **F05D 2250/52** (2013.01 - EP US); **F05D 2250/70** (2013.01 - EP)

Citation (search report)

- [IA] JP 2012202323 A 20121022 - MITSUBISHI HEAVY IND LTD
- [IA] JP 2015183670 A 20151022 - IHI CORP
- [A] JP 2011231779 A 20111117 - MITSUBISHI HEAVY IND LTD
- [A] WO 2015099199 A1 20150702 - MITSUBISHI HEAVY IND LTD [JP], et al
- See references of WO 2019097730A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
US 11060529 B2 20210713; US 2020049162 A1 20200213; CN 110582648 A 20191217; CN 110582648 B 20210525;
EP 3715639 A1 20200930; EP 3715639 A4 20210630; EP 3715639 B1 20220824; JP 6876146 B2 20210526; JP WO2019097730 A1 20200416;
WO 2019097730 A1 20190523

DOCDB simple family (application)
US 201716609399 A 20171120; CN 201780090189 A 20171120; EP 17932267 A 20171120; JP 2017041708 W 20171120;
JP 2019553678 A 20171120